

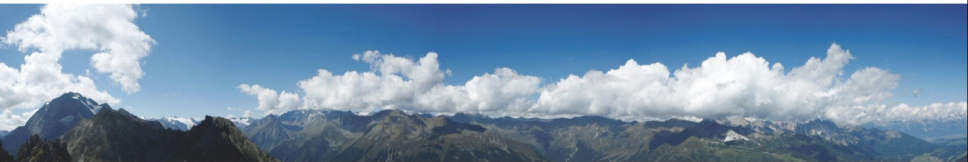


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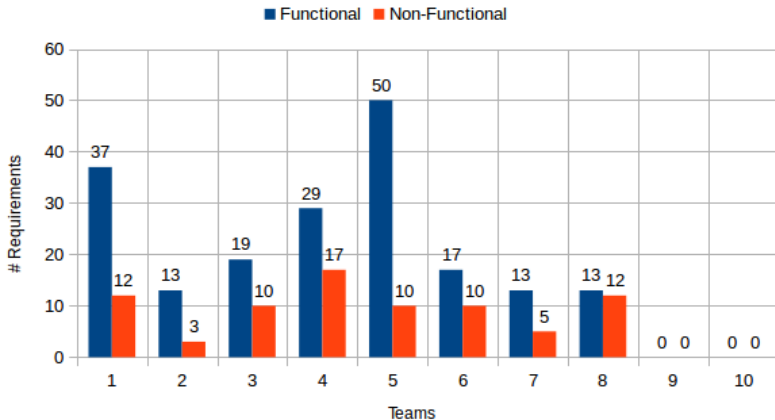
703657 PS/2 Web Engineering

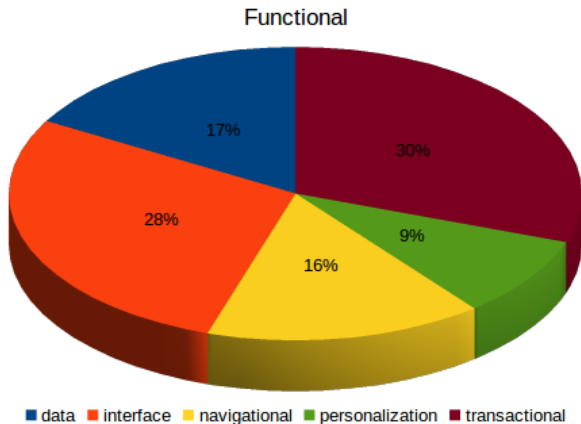
Task 3 - Web Application Modeling

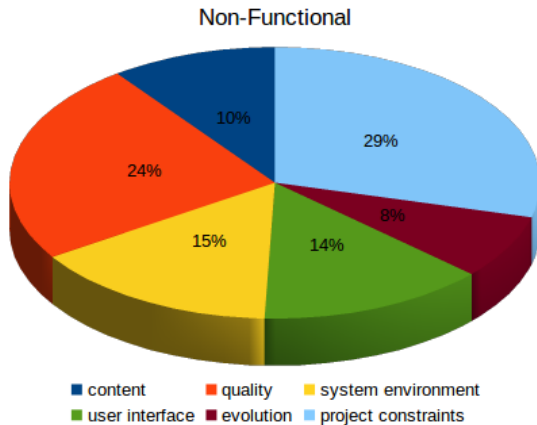
Wednesday, 2015-03-25

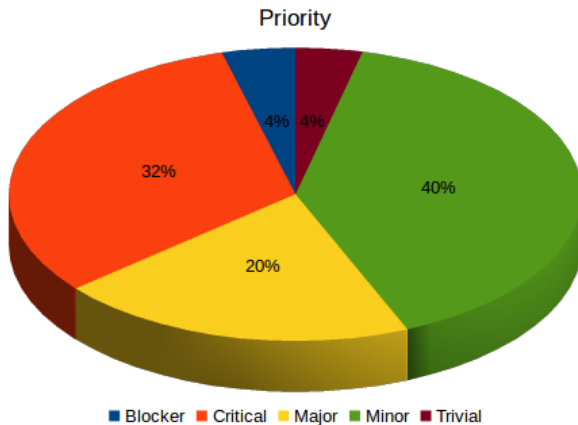


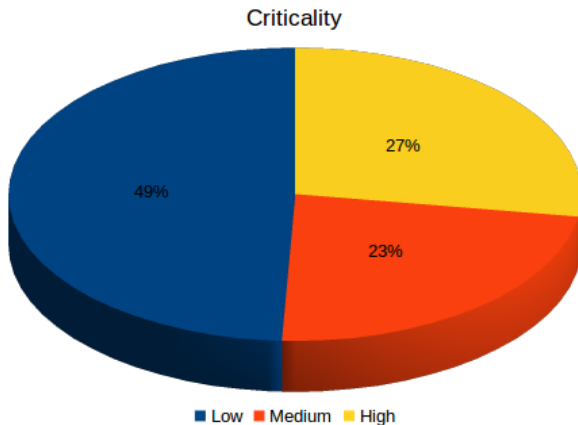
Your Project Requirements (1)











Schedule - Where are we now?

Session	Date	Task
1	Wed, 2015-03-11	Project idea
2	Wed, 2015-03-18	Requirements engineering
3	Wed, 2015-03-25	Web Application Modeling
4	Wed, 2015-04-15	Progress / Presentation
5	Wed, 2015-04-22	-
6	Wed, 2015-04-29	-
7	Wed, 2015-05-06	Mid-Term Report / Presentation
8	Wed, 2015-05-13	-
9	Wed, 2015-05-20	-
10	Wed, 2015-05-27	-
11	Wed, 2015-06-03	Progress / Presentation
12	Wed, 2015-06-10	-
13	Wed, 2015-06-17	-
14	Wed, 2015-06-24	Final Report / Presentation

The three levels used when modeling web applications:

1. Content → the information and application logics underneath the web application
2. Hypertext (Navigation) → the structuring of the content into nodes and links between these nodes
3. Presentation → the user interface or page layout

A clear separation of these three levels allows reuse and helps to reduce complexity.

Web modeling specific:

1. Following the object-oriented principles, structure and behavior are modeled at each of the three levels
2. Focus on object-oriented analysis & design:
 - Analysis → finding and discovering classes of objects or concepts in a domain
 - Design → defining software objects and how they interact to fulfil requirements

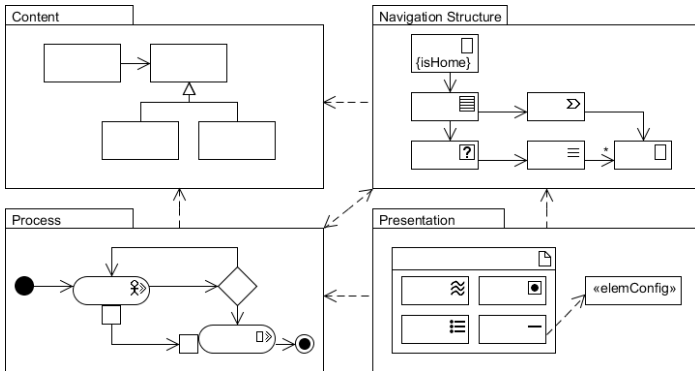
UML-based Web Engineering (UWE) ¹ is an object-oriented web engineering method based on the Unified Modeling Language (UML) ².

- i) a domain specific modeling language
- ii) a model-driven development process
- iii) tool support for systematic design and (semi-) automatic generation of web applications

¹<http://uwe.pst.ifi.lmu.de/>

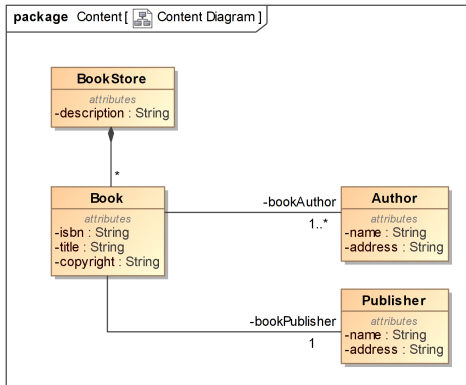
²<http://www.uml.org/>

The UWE notation is a "lightweight" extension of the UML.

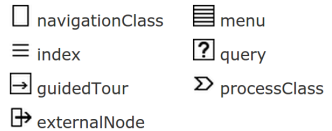
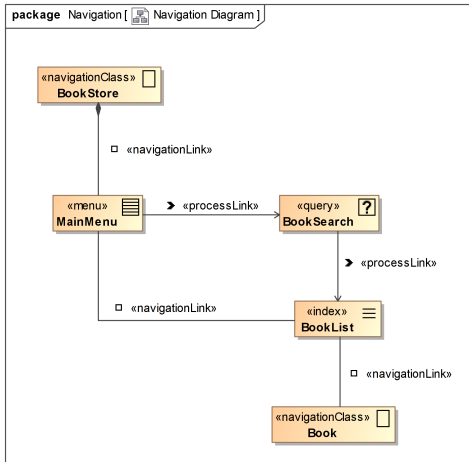


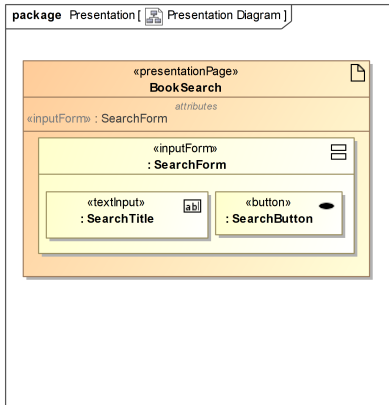
Web application modeling:

1. Content modeling → to model the information requirements
 - Structure/objects aspect, e.g. class diagram
 - Behavioural aspect, e.g. state and interaction diagrams
2. Hypertext modeling → to specify the navigability through the content of a web application, e.g. navigation link, process link
3. Presentation modeling → designing the structure and behavior of the user interface to ensure that interaction with the web application is simple and self-explanatory



- UML class diagram
- UML class relationships





 presentationGroup


 text


 anchor

 button

 inputForm

 presentationAlternatives


 presentationPage

 textInput

 fileUpload

 image

 customComponent

 selection

Group assignment:

1. Use UWE³ to model your project.
 - i) Content
 - ii) Navigation
 - iii) Presentation
2. Send your models/diagrams to the tutor by the next session (Wednesday, 2015-04-15, 08.15) at the latest

³A few visualization tools is available at <http://uwe.pst.ifi.lmu.de/downloads0verview.html>

Next session (Wednesday, 2015-04-15):

1. Prepare a presentation slides about your project progress. Your slides should cover the updated and improved:
 - i) project idea
 - ii) project requirements
2. Present your slides in the class
 - For each group, allocated time is 8 minutes + 2 minutes for Questions and Answers
 - Try to distribute your slides to all members of your group equally